

Notice of Allowability

Application No.

10/650,539

Examiner

Marcus Charles

Applicant(s)

BUTTERFIELD, ROGER P.

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 11-04-2005.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 08-01-2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 01-19-2006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Marcus Charles
Primary Examiner
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DETAILED ACTION

This action is responsive to the amendment filed 11-04-2005, which has been entered.

Claims 1-10 are allowed.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lynda Woo on 01-19-2006.

The application has been amended as follows:

Claim 10 has been rewritten to correct indefinite problems.

--(Claim 10): A chain comprising a plurality of parallel links articulately connected together in rows along a direction of travel, comprising:
a plurality of first links, a plurality of second links and a plurality of outside links, each of the links having a pair of apertures having a diameter and an inside surface;
a plurality of cylindrical bushings having an outer surface and an outside diameter, and an open center having an inside surface and an inside diameter, the bushings passing through the apertures of the first links and the second links; and
a plurality of cylindrical pins having an outer surface and an outer diameter, passing through the apertures of the outside links and through the open center of the bushings,

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the outer diameter of the pins being less than the inside diameter of the bushings, such that the pins may move within the open center of the bushings;

the diameter of the apertures of the first links and the outside diameter of the bushings being tightly fit such that no relative movement occurs between the inside surface of the apertures and the outer surface of the bushings;

the diameter of the apertures of second links being larger than the outside diameter of the bushings, such that the outer surface of the bushings can move relative to the inside surface of the apertures of the second links;

such that the outer surface of the pins bear and articulate against the inside surface of the bushings, and the inside surface of the apertures of the second links bear and articulate against the outer surface of the bushings, wherein both the inside surface and the outside surface of the bushings are used to carry chain load, allowing increased bearing area for a given chain width.--.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance: the prior art fails to anticipate or render obvious a chain as set forth in claims 1 and 10, and most significantly, the bushing having an aperture that is larger than the outer diameter of the cylindrical pins so that the pins move relative to the bushing and the diameter of the aperture of some of the second set of links being larger than the outer surface diameter of the bushing so that the bushing moves relative to the second links. In claim 10, the bushing passing through the centers of some of the links such that some of the links which the bushing passes through have diameters larger than the outside surfaces of

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the bushing so that the bushing moves relative to the links and the pins having outer surface diameters that are less than the diameters of the aperture of the bushing such that the pin moves relative to the bushing.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Docharme (5,382,199), Pierce (1,945,357) discloses a power transmission chain having bushings with apertures having a diameter larger than the pins Bremer (2,498,788), Focke et al. (2,466,639) and Mckeen (4,117,738) disclose a power transmission chain with the bushing passing through the links plated and the pins passing through the bushing. None of the prior arts above neither teaches, suggest or disclose the outer diameter of the bushings is smaller than the aperture of the links and the outer diameter of the pins is smaller than the inner diameter of the aperture of the bushing so as to allow relative movements between the bush and the links and the pins and the bushings.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Marcus Charles
Primary Examiner
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January 17, 2006